



Express Mail Label No. EV302233068US

PATENT APPLICATION
Docket No. 11675.23

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

David A. Cathey et al.

Serial No.: 09/031,617

Filed: February 27, 1998

For: MOCVD PROCESS USING OZONE AS A REACTANT
TO DEPOSIT A METAL OXIDE BARRIER LAYER

Examiner: Mary Wilczewski

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RESPONSE TO RESTRICTION REQUIREMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Responsive to the communication mailed from the United States Patent and Trademark Office on July 7, 2003, Applicants have the following comments.

The Examiner has indicated that the application contains claims directed to the following four patentably distinct species of the claimed invention:

- 1) a first species of the claimed invention as recited in claims 1, 6, 7, 8, 15, and 33 in which an oxide layer is formed over the discrete region, a contact opening is etched in the oxide layer, and the surface of the contact opening is covered with the barrier layer;
- 2) a second species of the claimed invention as recited in claims 16 and 34 in which an oxide layer is formed over the barrier layer, an opening is etched in the oxide layer with a first etchant, and the barrier layer is removed with a solution of phosphoric acid;

3) a third species of the claimed invention as recited in claims 17-25, 35, and 36 in which the substrate is heated in a reaction chamber, an inert gas is introduced into the reaction chamber, a vaporized organometallic source gas and ozone are introduced into the reaction chamber, and ozone is introduced into the reaction chamber to react the source gas with ozone to form a barrier layer; and

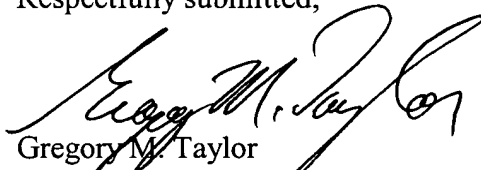
4) a fourth species of the claimed invention as recited in claim 30 in which a barrier layer is deposited on a substrate having an electrically active region at a pressure of 0.1 torr to about 1 torr by reacting a source gas and an oxidizing gas.

Applicants hereby elect species 1. Currently, claims 1-15 and 31-33 read on species 1.

In the event there remains any impediment to allowance of the claims that could be clarified in a telephone interview, the Examiner is respectfully requested to contact the undersigned attorney.

Dated this 6th day of August 2003.

Respectfully submitted,


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